Module 1

- **EMPOWER YOUR ENGLISH SKILLS IN YOUR PROFESSION**

SUMMARY

Introduction

The new architecture set to shape the world in 2024

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CNN

The past year in architecture may be remembered for superlatives after India opened the world's largest office building and Malaysia's Merdeka 118 became the second tallest skyscraper ever constructed.

But 2023 was also a year that celebrated subtlety, with a thoughtfully designed Chinese boarding school named World Building of the Year and British architect David Chipperfield awarded the Pritzker Prize — the field's equivalent to a Nobel — for a career dedicated to understated cultural institutions.

The year ahead will likely bring a similar mix of the bold and the beautiful. Here are 10 architectural projects set to shape the world in 2024:

1. Benin National Assembly, Porto-Novo, Benin

Kere Architecture

Since his very first commission, designing a primary school for his Burkina Faso village in 2001, architect Francis Kéré has built his reputation on modest civic and community facilities. At 35,000 square meters (377,000 square feet), his plan for a new national assembly in neighboring Benin is a different prospect altogether.

The design was unveiled with relatively little fanfare in 2021, but the following year Kéré became the first African architect to claim the coveted Pritzker Prize. Now, the world will be watching closely to see how principles he has long championed — natural ventilation, ample shading and the use of local materials — are applied at grander scale.

Kéré's Berlin-based firm says the building's top-heavy appearance was inspired by the palaver tree, which traditionally served as a meeting place. A ground-floor

assembly hall will accommodate Benin's 109-seat legislature, while a public park around it offers "a sense of openness and transparency," the firm's project description added.

2. Nanjing Vertical Forest, Nanjing, China

Stefano Boeri Architetti

The tree-covered Bosco Verticale (or "Vertical Forest") in Milan, Italy has become a symbol of green design since it opened almost a decade ago. But for architect Stefano Boeri, the eye-catching residential project was just the beginning.

With a manifesto committed to launching "a global campaign on urban forestry," Boeri's firm has since realized similar projects in Europe and beyond. The latest, in China's former capital Nanjing, will feature around 800 trees and over 2,500 shrubs and trailing plants installed on carefully configured balconies.

Comprised of two towers — the larger of which stands 200 meters (656 feet) tall — the latest Vertical Forest will contain offices, a museum and a hotel with a top-floor swimming pool. Boeri's firm has said the 27 native species bursting from the buildings' facades will promote biodiversity and reduce carbon dioxide emissions by around 18 tons a year.

3. Kunstsilo, Kristiansand, Norway

Kunstsilo

A soaring pre-war grain silo in the southern Norwegian city of Kristiansand stood empty when the local mill closed, following 370 years of continuous operation, in 2008. But local officials ordered that the decommissioned heritage structure be preserved, and a subsequent design competition — which attracted submissions from over 100 architecture firms — tasked entrants with reimagining the space as an art gallery.

The winning proposal, by Mestres Wåge Arquitectes and MX_SI, leaves much of the silo's exterior intact. Inside, however, internal warehouse space has been reconfigured to accommodate 3,000 square meters (32,000 square feet) of

exhibition space, with top-lighting illuminating the space via the structure's cylindrical concrete "cells."

Once able to hold up to 15,000 tons of grain, Kunstsilo will now house — among much else — the 5,500-stong Tangen Collection, the world's largest private collection of Nordic art amassed by art patron Nicolai Tangen, who himself hails from Kristiansand.

4. Keppel South Central, Singapor

NBBJ

In an era of remote working and return-to-office mandates, architects are rethinking the role corporate workplaces play in people's lives. Occupants of Singapore's forthcoming Keppel South Central tower, then, may have more motivation than most to ditch the home office, thanks to its abundant green spaces and airy outdoor swimming pool.

Green planning laws in the tiny southeast Asian state demand that property developers set aside space for landscaping when building new high-rises, and the 33-story tower's design is punctuated with verdant roof terraces for workers. There's a public offering, too: The building's facade curls out near its base to become a canopy for an open-air plaza containing shops, cafes and restaurants.

Elsewhere, rooftop-mounted solar cells and rainwater capture systems contribute to what architecture firm NBBJ boldly claims will make this one of Singapore's "most sustainable office building developments to date."

5. EVE Park, London, Canada

Gensler/Studio Dror

Advertised to potential buyers as an "all-electric community powered by the sun," Canada's Electric Vehicle Enclave Park (or EVE Park) in London, Ontario is a net-zero residential project aimed squarely at the EV enthusiast.

True to its name, the development offers electric vehicle charging and a car-share program for residents. Rather than driveways or a ground-level parking lot, each of

the condo buildings contains an automated "smart" parking tower that stores vehicles vertically, freeing up space for gardens and landscaping.

Designed for developer s2e Technologies by US architecture firm Gensler, the four circular residential structures can accommodate a combined 84 households. They are positioned and orientated to maximize sun exposure for the mass of solar panels that feed into the community's "micro-grid."

6. **EPIQ, Quito, Ecuador**

Uribe Schwarzkopf/Bjarke Ingels

Quito is getting taller by the year. Amid something of a building boom, Ecuador's capital has welcomed high-rises designed by big-name architects like Moshe Safdie, Jean Nouvel and Ma Yansong in recent years. But it is perhaps Bjarke Ingels, founder of Danish design firm BIG, that has had the greatest impact on the city's once modest skyline.

In 2022, the architect completed work on the 436-foot-tall IQON, now the city's tallest structure. This year he returns with another four-letter development, EPIQ, on the southern tip of the downtown Parque La Carolina (often dubbed Quito's Central Park).

The 24-story mixed-use development is broken into eight distinct volumes — or "buildings within a building," as BIG put it — that are connected by lush elevated terraces. The red and pink coloration was, the firm added, inspired by the earth tones and herringbone pattern seen int the city's historic center, which is an UNESCO World Heritage Site.

7. **The Grand Palais restoration, Paris, France**

Chatillon Architectes

The newly restored Notre Dame isn't the only major renovation wrapping up in Paris this year. Just three kilometers to the cathedral's west stands the historic Grand Palais, which has been closed to the public since early 2021.

After hosting the Paris Expo at the turn of the 20th century, the Beaux-Arts palace has served as an exhibition hall, event space and even a military hospital during

World War I. But while work has been undertaken on its glass roof and foundations in that time, the structure had never undergone major renovations until now.

This 212-million-euro ($232-million) overhaul, masterminded by Chatillon Architects, will modernize facilities, improve access and environmental performance, and change the way visitors move through the complex's sunlit exhibition hall. An underground level will also be opened, with the building's former horse-riding ring transformed into a children's area.

8. One Za'abeel, Dubai, UAE

Kerzner International

The United Arab Emirates, home to the world's tallest building, has achieved another superlative feat of structural engineering: The world's longest cantilever.

Known as the Link, the 226-meter (741-foot), 9,500-tonne skybridge was dramatically hoisted into place above a busy Dubai highway in 2020. It connects the two skyscrapers — described by Nikken Sekkei, the Japanese firm behind the design, as "father and son" towers — of the One Za'abeel development, which is set to open next month.

With the project's main towers containing residences, office space and a hotel, the 100-meter-high horizontal portion of the complex will house "Michelin-inspired" restaurants, an infinity pool and observation decks offering views over the city and Persian gulf.

9. Populus Hotel, Denver, USA

Studio Gang

Set to open in Denver, Colorado this summer, the 265-room Populus hotel puts a new spin on nature-inspired — or "biophilic" — design. Inspired by the knotted white bark of the native aspen tree, its white facade is punctuated with openings that provide guests with window seats of various sizes while giving the 13-story structure its refreshingly irregular appearance.

Populus' owner, Urban Villages, describes its property as the first carbon positive hotel in the US — a title based not only on low-energy design features but also a promise to plant thousands of acres of forest, according the New York Times.

The hotel also boasts a somewhat novel environmental claim: This is the first development in downtown Denver with no onsite parking, according to architecture firm Studio Gang, which has also been tasked a major revitalization of Denver's Civic Center plaza.

10. New theater at Queensland Performing Arts Centre, Brisbane, Australia

Visualiii

With its huge, rippled glass facade and open foyer spaces, a long-awaited new building at the Queensland Performing Arts Centre (QPAC) in Brisbane, Australia, offers a transparency rarely associated with theaters. Further within, however, a concrete shell contains the altogether darker star attraction: A 1,500-seat timber-clad auditorium designed to host ballet, opera, theater and musicals.

Norwegian architecture firm Snøhetta and local practice Blight Rayner — who together beat more than 20 entries in an international competition — say that the design was inspired by the flow of the Brisbane River. The undulating design also nods to the Turrbal and Yuggera people who traditionally owned the land, with the designers citing a poem by Indigenous Australian poet Aunty Lilla Watson evoking the river's "ripples."

Originally set to open in 2022, the long-awaited 175 million Australian dollar ($117 million) project could add a further 300,000 visitors to QPAC's annual footfall.

UNIT ONE

Revision of Tenses

In architecture, precise communication about design processes, project timelines, and construction phases is crucial. Mastering grammar tenses helps convey these details clearly and accurately. Here's a guide to the key tenses and their functions:

1. **Present Simple:**
    - Form: Subject + base verb (-s/-es for third person singular)
    - Function: Used for habitual actions, general truths, and facts.
    - Example: "The architect designs new plans every month."
    - Exception: Third person singular adds "-es" or "-s" to the base verb. For example: "She reviews the blueprints."
2. **Present Continuous:**
    - Form: Subject + "to be" (am/is/are) + verb-ing
    - Function: Expresses actions happening now or around now.
    - Example: "The construction team is laying the foundation."
    - Comparison: Contrasts with Present Simple by emphasizing temporary actions in progress.
3. **Past Simple:**
    - Form: Subject + past tense verb
    - Function: Used for completed actions in the past.
    - Example: "Last year, the firm completed the renovation project."
    - Exception: Some irregular verbs have unique past forms (e.g., design-designed, build-built).
4. **Past Continuous:**
    - Form: Subject + "was/were" + verb-ing

- Function: Describes actions that were ongoing at a specific time in the past.
- Example: "At 3 p.m. yesterday, the architect was reviewing the site plans."
- Comparison: Emphasizes actions that were in progress at a particular past moment.

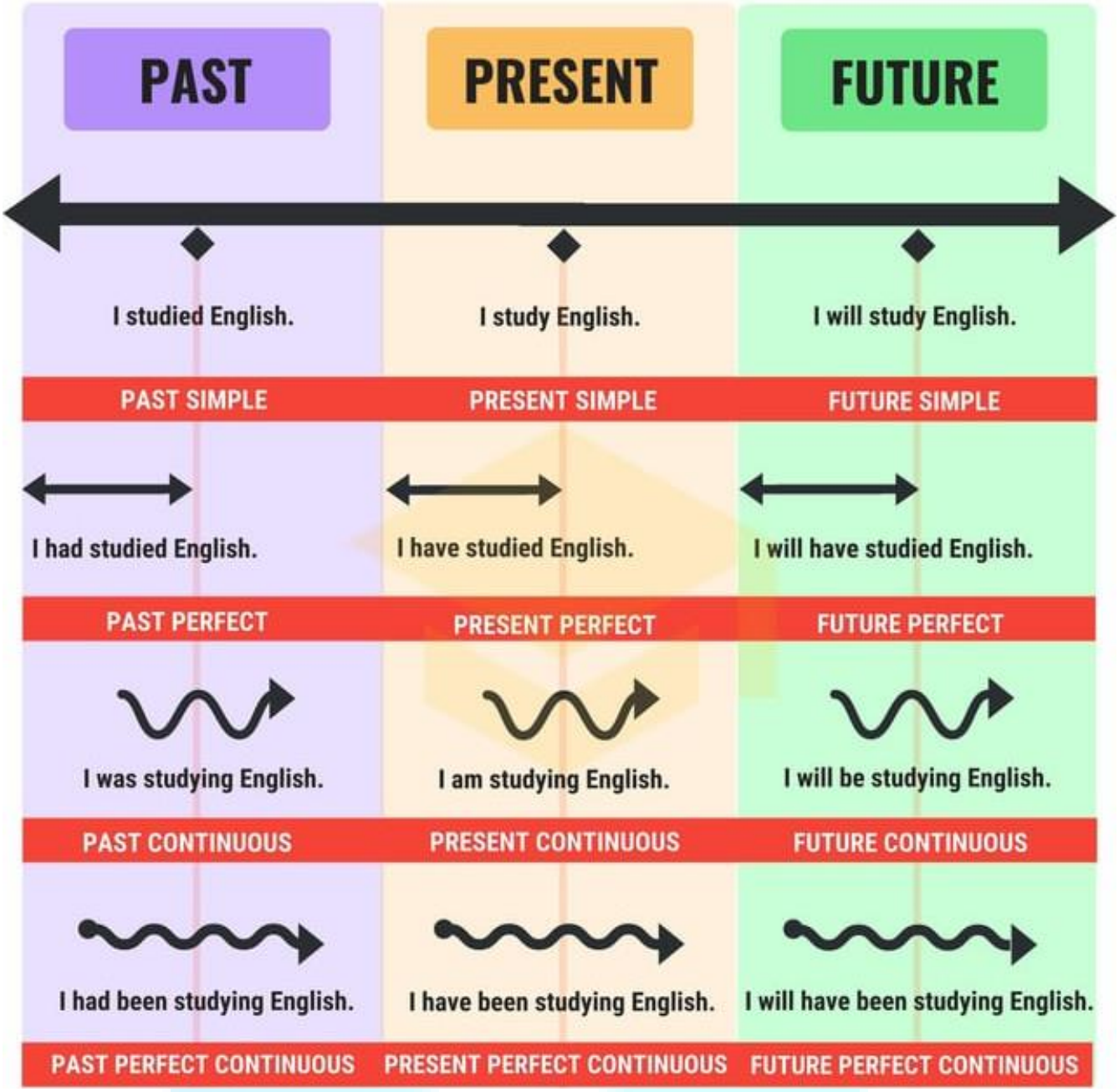
5. **Present Perfect:**
   - Form: Subject + "have/has" + past participle
   - Function: Indicates actions that happened at an unspecified time before now, or actions with present relevance.
   - Example: "The team has finalized the building design."
   - Comparison: Differs from Past Simple in that it emphasizes the result or current relevance of the action.
6. **Future Simple:**
   - Form: Subject + "will" + base verb
   - Function: Used for predictions, promises, and spontaneous decisions about the future.
   - Example: "The architect will present the new design next week."
   - Comparison: Unlike Present Simple or Present Continuous, it specifically refers to future actions or states.

EXERCISE 1

Complete the sentences below with the verbs in brackets in the correct form: Present Simple or Continuous, Past Simple or Continuous, Present Perfect Simple or Continuous, Past Perfect, Shall, Will, or Be Going To.

1. A: Don't submit that report yet. It _____ (finalize) completely now. You _____ (face) issues!
   B: Oh, _____ (review) it then.
2. A: Can you give me that floor plan?
   B: What _____ (do) with it?
   A: I _____ (analyze) the design. I'm preparing a summary. Do you need any?
   B: No, thanks, I _____ (just/complete) my own report.
3. ARCHITECT: What _____ (do) at the time the error was discovered?
   DESIGNER: _____ (review) the blueprints with my team. We were very focused because we _____ (not/check) these details before.
4. A: _____ (you/go) to the construction seminar next week?
   B: Yes, I _____ (already/buy) the tickets!
5. A: _____ (ever/be) to an international architecture conference?
   B: Yes, I _____ (go) to one in Berlin last year.
6. A: I _____ (reconcile) the plans all morning. I'm really tired.
   B: Don't worry, I _____ (help) you finish.
7. A: Why _____ (use) the new design software today? You _____ (never/use) it before.
   B: Because I _____ (use) too many manual methods yesterday.
8. A: How long _____ (we/drive)?
   B: Too long. I'm tired. _____ (we/stop) for a break?
   A: OK.

The structures



GRAMMAR REVISION: SIMPLE PRESENT VS SIMPLE PRESENT CONTINUOUS

Retrofitting Brazilian Buildings:

Sustainability and Innovation in Downtown São Paulo

Renata Building / Metro Arquitetos. © Fran Parente

Written by Camilla Ghisleni | Translated by Diogo Simões

Published on September 04, 2024

The term "retrofit," unlike rehabilitation or restoration, has been adopted by the market to address technological upgrades in existing buildings. These projects focus on aligning constructions with local technical standards and adapting spaces to be more functional and sustainable, meeting current demands.

Retrofit has become a key practice in contemporary architecture, standing out for its ability to revitalize existing buildings without the need for demolition while offering significant economic and social benefits. This approach is gaining ground in the architectural field, driven by iconic projects and public and private initiatives.

In this context, São Paulo, like other major cities, is investing in retrofitting its old and abandoned buildings. To counteract the decline of its historic downtown, the São Paulo government has introduced various initiatives over the years to encourage such projects in the central area. These efforts include tax exemptions, public funding, and other incentives. Despite the contradictions, these retrofit initiatives

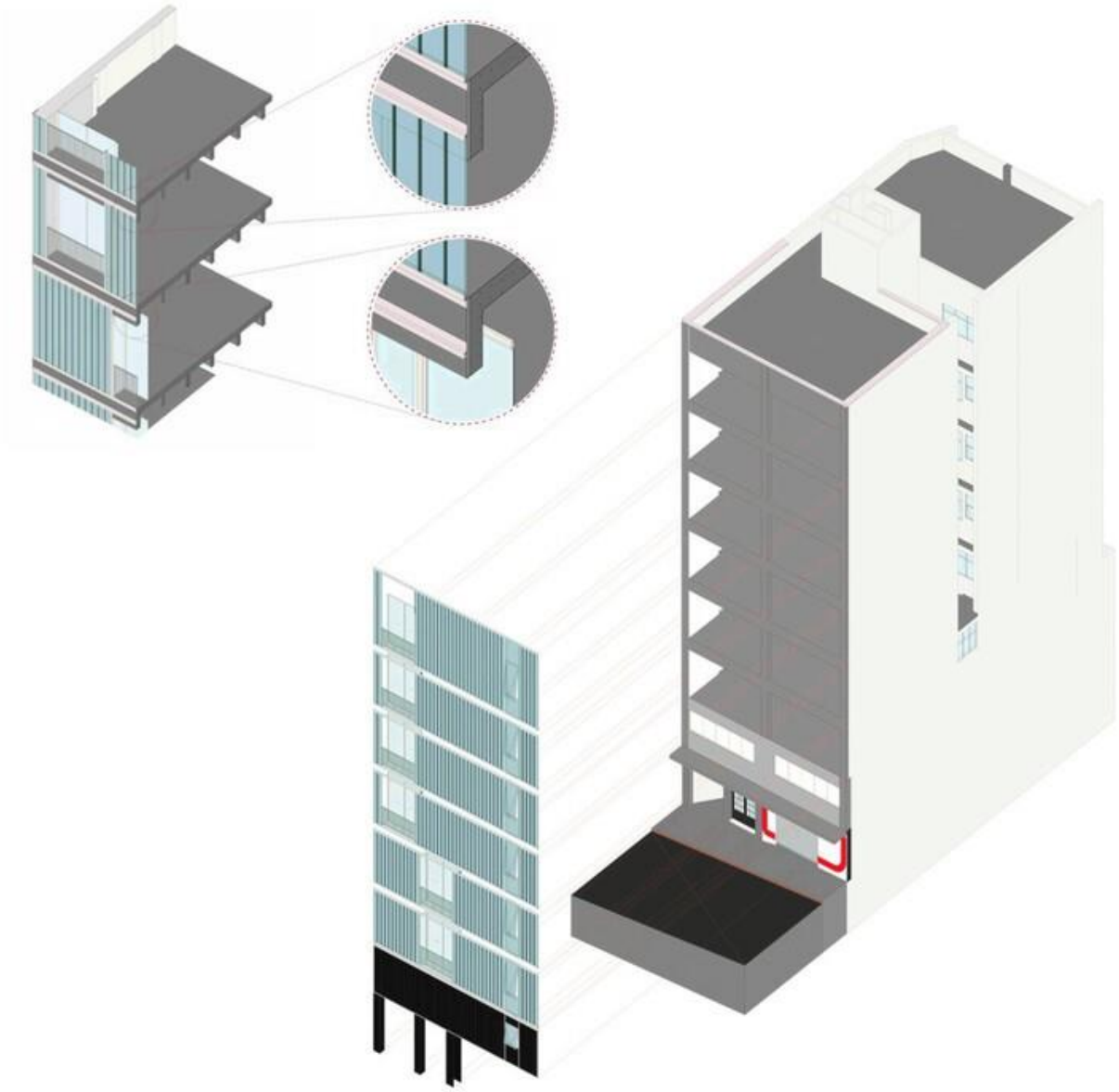
have made São Paulo a center for globally recognized projects that blend existing architectural features with innovation and sustainability.

Among the most notable projects, the Renata Building stands out both nationally and internationally. Designed by METRO, it won *The Monocle Design Awards* for "Best Retrofit," making it the only Brazilian project to receive this recognition. This renovation focuses on a São Paulo landmark originally designed by architect Oswaldo Bratke in 1956. Along with other iconic buildings like the Copan, it is part of the "São Paulo Moderna" group, designated as a historical heritage site in 2012. The building showcases innovative features, including exposed concrete, a layout with two large volumes, and extensive use of cobogós on the facades. The retrofit aimed to convert the building from commercial to residential use. Its commercial function, which showed signs of obsolescence before the COVID-19 pandemic, faced further challenges during the health crisis, leading to a significant rise in vacancies in its commercial spaces.

A major challenge in retrofitting historic buildings is preserving existing architectural elements, as seen in the Renata Building. In this project, the only facade intervention addressed a long-standing issue. The space between the original window frames and the perforated elements took a lot of work to access, leading to dirt accumulation and pigeon nests. To solve this, the project removed part of the old window frames and installed new ones with sliding doors, set back from the originals and without seals. This change created balconies for the units and improved access to the building's distinctive cobogos.

Another notable example in São Paulo is the Retrofit Brigadeiro, distinguished by its innovative and functional design. The project aimed to modernize the building's appearance, enhance natural light, and reduce noise from the busy avenue. *Profilit*® glass was selected for the renovation because its U-shaped double glazing improves thermal and acoustic insulation while offering privacy for indoor activities. Each floor along the 11-meter front facade also features a balcony and floor-to-ceiling windows.

Retrofit Brigadeiro / Coletivo de Arquitetos. © Max Fahrer



Retrofit Brigadeiro / Coletivo de Arquitetos. Diagrams

Projects like these demonstrate that retrofit, while it might seem simple, is a complex process with many challenges. One major difficulty is working with existing infrastructure and its structural limitations. Additionally, balancing preservation with modernization requires creative solutions to update the building while maintaining its original features. Finally, like any renovation or restoration, retrofit projects must contend with unexpected issues that can extend both the timeline and cost of the project.

Renata Building / Metro Arquitetos. © Fran Parente

However, projects that tackle these challenges offer many benefits beyond just the buildings. Retrofit can revitalize neighborhoods and communities, foster urban renewal, boost local economic development, and strengthen community ties. By renovating old and abandoned buildings, we preserve historical value while creating high-quality spaces that provide more comfort, improve quality of life, and promote sustainable urban development.

GRAMMAR REVISION: SIMPLE PAST

Belgrado House / Ignacio Szulman arquitecto

© Javier Agustín Rojas

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Giovanni Batista Piranesi was an Italian printmaker during the 18th century. His interest in the ruins of the Roman Empire led him to create an extensive catalog of reproductions. His fascination with these ruins in many cases led him to invent them, creating an imaginary world of ancient, destroyed buildings. His legacy was a contribution to the formation of neoclassicism.

© Javier Agustín Rojas

In the House on Belgrano Street, located in the Parque Chas neighborhood, we invented a ruin of broken bricks that is grafted as a piece onto the pre-existing construction. And in an inverse process, we made the pre-existence newer, we repaired it and painted it white to give it a second life. The new is broken to make it older, and the old is renewed, creating a game of tensions and ambiguities.

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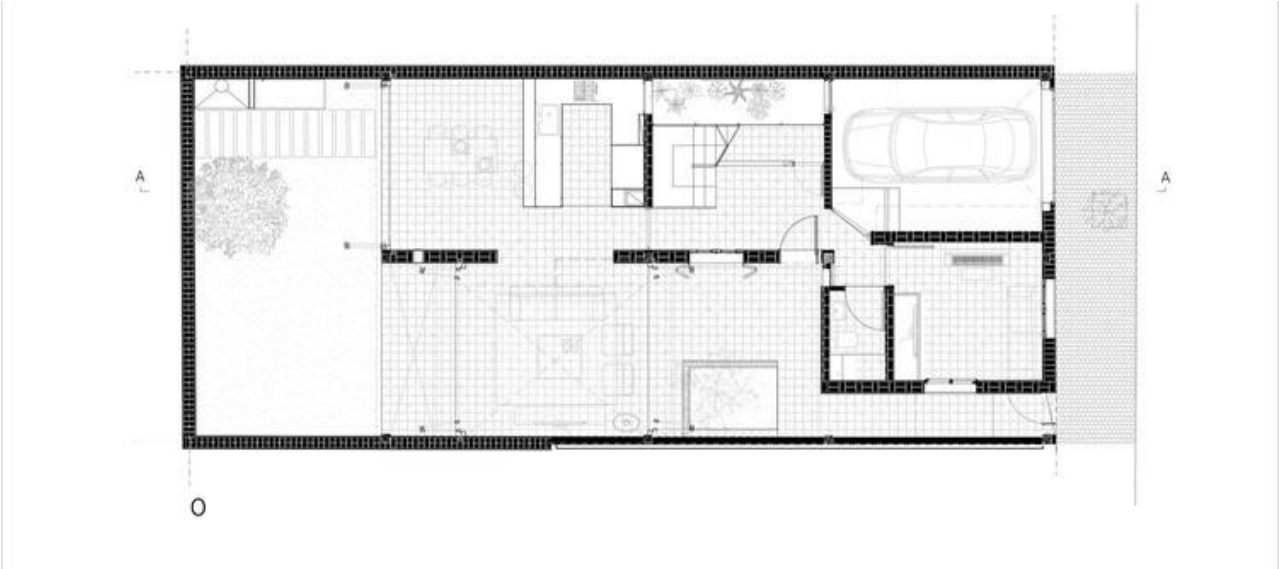
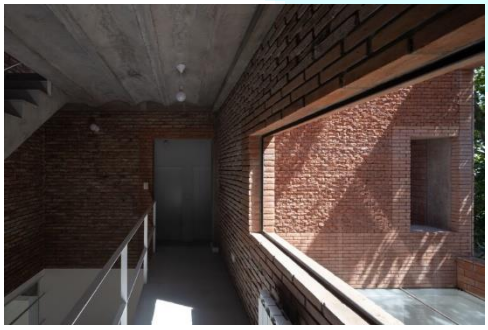


Ground floor plan

On the ground floor, the rear is demolished to generate a garden, and the front and side of the pre-existing construction are preserved. The living and kitchen spaces are closed with large folding carpentry, achieving spaces that have something of both interior and exterior.

The upper volume contains the sleeping area, and staircase, and completes the configuration of the living space. On the outside, this volume is clad in a series of broken bricks and others that are left whole in the openings and on the edges where it is necessary to rectify. Inside, the same criterion is repeated, but with a mixture of common rustic bricks and exposed bricks. This subtle contrast is used to compose different layers of bricks as if they were layers of archaeological strata, which contribute to accentuating the appearance of a ruin.



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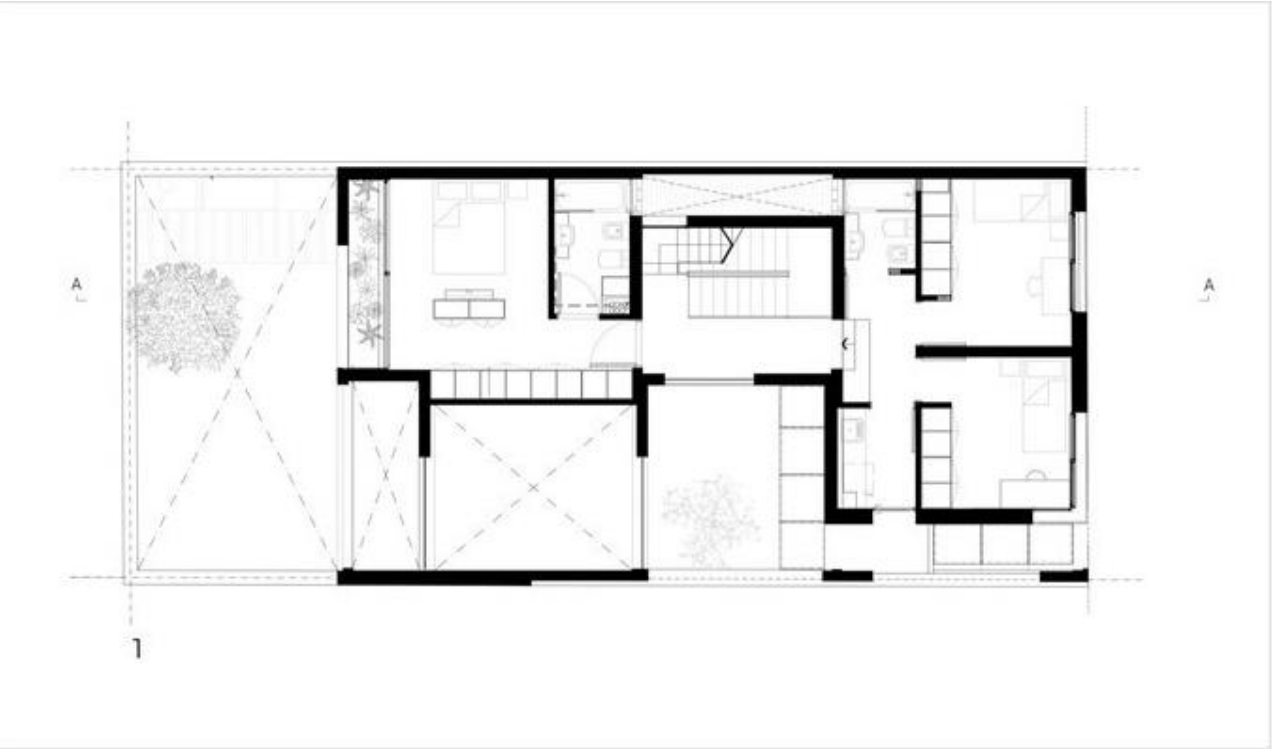


First floor plan

GRAMMAR REVISION: FUTURE

Retrofitting Buildings to be Future-Fit

The journey to decarbonization

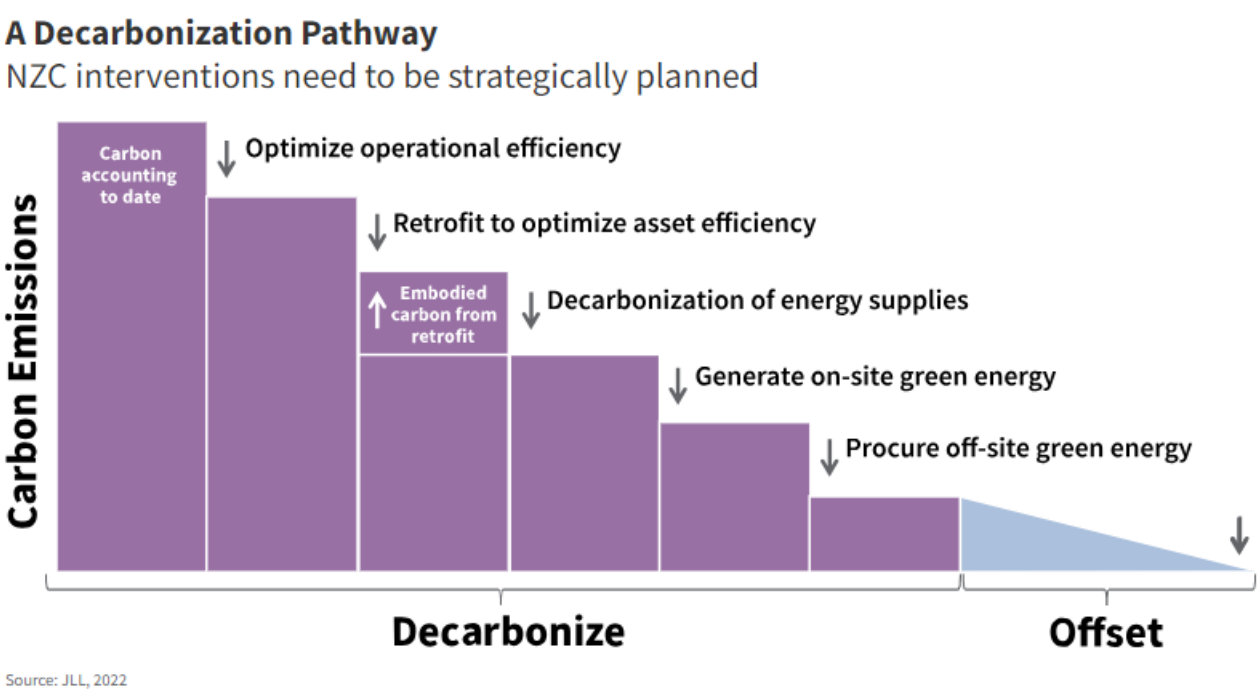
Rising energy costs will hasten the move towards efficient buildings.

We estimate that across the world's most developed cities at least 90% of office buildings are over 10 years old. Most of these assets would not meet today's energy efficiency standards for new builds and very few have firm plans in place to prepare for even more stringent regulations on the horizon as governments pivot efforts to decarbonize existing buildings.

80% of office buildings which exist today will still be in-use in 2050

To avoid 'brown discounts' and penalties, real estate owners need to make their buildings future-fit through a program of net zero carbon (NZC) interventions as part of broader asset repositioning strategies.

In our latest research, we introduce JLL's asset decarbonization roadmap. We examine 3 levels of retrofits - from light, focusing on performance optimization, to deep whole-building refurbishments which result in greater energy efficiency gains, emissions reduction and cost-savings. We share some recent examples of retrofitting projects from across the globe that demonstrate the benefits for early adopters on price, liquidity, debt and tenant attraction.



EXERCISE 2:

Multiple Choice

1. The architects _____ the building's structure before starting the renovation.

   a) were analyzing
   b) are analyzing
   c) analyzed
   d) was analyzing
   e) did analyze

2. We _____ the new energy-efficient windows next month.

   a) should be installing
   b) install
   c) installing
   d) will install
   e) would install

3. To maintain the building's heritage, you should always _____ original materials.

a) preserve
b) preserved
c) preserving
d) shall preserve
e) was preserving

4. The permits _____ before we could begin the refurbishment.

a) arrive
b) arrived
c) had arrived
d) have arrived
e) will arrive

5. Look! The crew _____ the old facade.

a) were stripping
b) was stripping
c) is stripping
d) strips
e) stripping

6. We _____ the design for the new extension before the client did.

a) had finalized
b) is finalizing
c) finalize
d) finalized
e) finalizing

7. I _____ in the field of architecture for ten years.

a) has been working
b) have been working
c) worked
d) working
e) were working

8. I _____ the new renovation plan tomorrow.

a) has prepared
b) have prepared
c) will prepare
d) prepare
e) prepared

9. She _____ working on the restoration project daily.

a) liking
b) likes
c) like
d) is liking
e) has liked

10. I _____ the feasibility study now. Do not disturb me.

a) am conducting
b) conduct
c) did
d) was conducting
e) were conducting

11. The heritage building _____ usually well maintained.

a) are
b) has
c) is
d) shall
e) were

12. The architects _____ a sustainable design approach.

a) had just implement
b) has just implemented
c) have just implemented
d) have just implement
e) will just implement

13. She _____ to the site visit yesterday.

a) go
b) gone
c) had gone
d) went
e) will go

14. If I _____ the building codes, I would have made different design choices.

a) had known
b) have known
c) knew
d) know
e) known

15. I met the contractor while I _____ on the renovation site.

a) work
b) worked
c) working
d) was working
e) were working

16. She never _____ late to project meetings.

a) came
b) come
c) comes
d) coming
e) is coming

17. The project manager _____ soon.

a) arrived
b) arrives
c) has arrive
d) is arriving
e) will arrive

18. If she asks for a budget increase, I _____ her.

a) gave
b) give
c) given
d) gives
e) will give

19. I reviewed the renovation plans while I _____ the site.

a) had inspected
b) was inspecting
c) was inspect
d) inspected
e) inspecting

20. The building _____ a lot since the last major renovation.

a) will change
b) have changed
c) has changed
d) changed
e) change

UNIT TWO

Reading comprehension

Energetic Retrofitting: A Solution for Environmental Obsolescence in Architecture

University of Graz Library / Atelier Thomas Pucher. Image © David Schreyer

Written by **Enrique Tovar**

Published on May 26, 2023

Nowadays, the climate crisis is transforming the way we conceive architecture, seeking to reduce the carbon footprint of buildings and cities to achieve the Paris Agreement objectives. Given this backdrop, what challenges should we expect in the future?

In the upcoming years, some of the most significant obstacles we will face are related to establishing sustainable and enduring well-being in the built environment across all dimensions, including social and environmental aspects. To tackle these challenges, initiatives like the European Green Deal propose measures

such as using more durable and reusable building materials, renovating existing structures, and improving energy efficiency.

The most sustainable building is the one that is already built. -Carl Elefante

As we face major architectural challenges, such as urban gentrification, the scarcity of adequate housing, the rapid obsolescence of buildings, and the imperative to improve their energy efficiency, some specific project typologies have emerged and gained prominence. These can be grouped into four categories: renovation, adaptive reuse, extension, and restoration of buildings. In this context, energetic retrofitting –the process of making improvements to an existing building or structure with the aim of reducing energy consumption– is now essential to upgrade existing buildings and enhance their energy efficiency by modifying their systems, including HVAC, lighting, insulation, facade elements, doors and windows. Among the numerous innovations present in the world of construction today, *Sto* and its range of materials and systems provide the foundation for energy-efficient improvements, while simultaneously enhancing the appearance and value of buildings. To showcase the value of energetic retrofitting, four typologies are presented and explained through projects that highlight the *Sto* products used.

Renovation

Architectural renovation is the process of updating an existing building or structure to improve its functionality, appearance, and value. This can involve small or large updates such as replacing the facade, roof, or windows. A common practice in architecture, it helps to extend the useful life of outdated or historic structures, revitalizing urban centers.

ShowPass Refurbishment / Energiehaus Arquitectos. Image © Pol Viladoms

A prime example of this is the ShowPass project in Barcelona, where the interior and exterior of a 20th-century building were renovated to enhance the architectural value of the building through energy improvement while preserving the architectural and cultural heritage of the city. This renovation makes the building more resilient to future environmental challenges. During the renovation, a variety of low-impact materials were used to minimize environmental impact.

ShowPass Refurbishment / Energiehaus Arquitectos. Image © Pol Viladoms

Specifically, the exterior of the building features facade coatings made with intelligent technology finishes that incorporate photocatalytic air-cleaning properties. Work was also done on the thermal envelope and the first floor and level of the building to improve energy efficiency. Overall, the ShowPass building strategies achieved a 77% reduction in greenhouse gas emissions. In addition, users enjoy near-zero energy consumption with high levels of comfort in the center of the city, protecting the facade against outdoor conditions, including the growth of fungi, and thermal control.

Another outstanding example of renovation can be found in Frankfurt's Alt-Sachsenhausen, a neighborhood in urgent need of change, as its local businesses and attractions had fallen into disuse. Kleine Rittergasse 11 is a project involving an existing building that was commissioned to be renovated into housing and a studio, but saving the dilapidated building proved prohibitively expensive and structurally challenging.

Kleine Rittergasse 11 / Franken Architekten. Image © Eibe Sînnecken

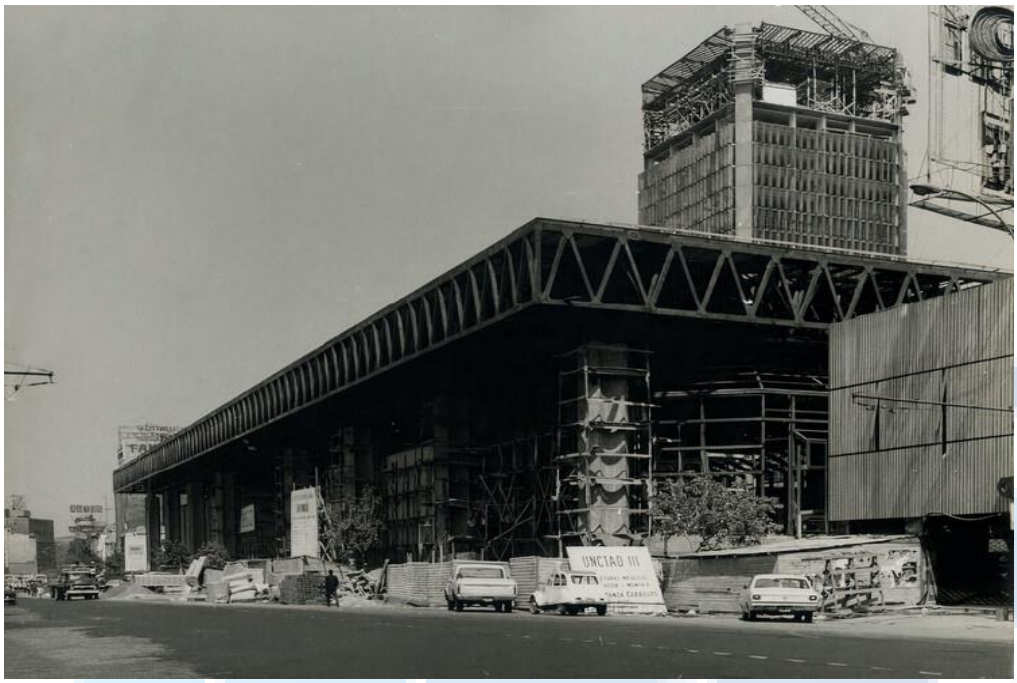
Kleine Rittergasse 11 / Franken Architekten. Image © Eibe Sînnecken

As an alternative solution to renovating the area, the architects chose to recreate the gable roof and the basic shape of the houses in the area, simplifying it by removing some architectural elements. For the exterior design, 3D facade elements were used to create an afterimage effect, which mimics the phenomenon of seeing a blurred or distorted image after staring at it for a while and then closing your eyes. To achieve this effect, the panels were milled on a CNC machine. The architects chose to utilize perlite-based panels, carefully blending the joints to achieve a seamless appearance. This deliberate approach prevents the panel joints from detracting from the lines that convey the lingering presence of the old structure. Enhancing the facade overall impact is its monochromatic finish, which imbues the afterimage with a subtle quality.

Kleine Rittergasse 11 / Franken Architekten. Image © Oliver Tamagnini

Adaptive reuse

Adaptive reuse is the process of transforming existing buildings or structures that no longer serve their original purpose, by giving them a new use while retaining as much of their historic features and character as possible. Rather than demolishing them and building new structures from scratch, this approach seeks to adapt buildings to current needs and reuse them for new functions. The possibilities for adaptive reuse projects are varied, from converting warehouses into art galleries, to transforming government buildings into cultural centers, and many more.



Construction process during 1970-1972. Image Courtesy of Biblioteca Nacional Digital de Chile

Gabriela Mistral Cultural Center / Cristián Fernández Arquitectos + Lateral arquitectura & diseño. Image © Nico Saieh

This typology is often considered a sustainable alternative to new construction because it preserves existing resources and reduces waste and environmental impact. The Gabriela Mistral Cultural Center in Santiago de Chile is an example of how this approach can preserve a building and change its historical perception while improving its energy efficiency. This building, formerly used as a government

headquarters, and now a space dedicated to arts and culture used two essential materials in its design: corten steel as the building's overall skin and an external wall insulation system.

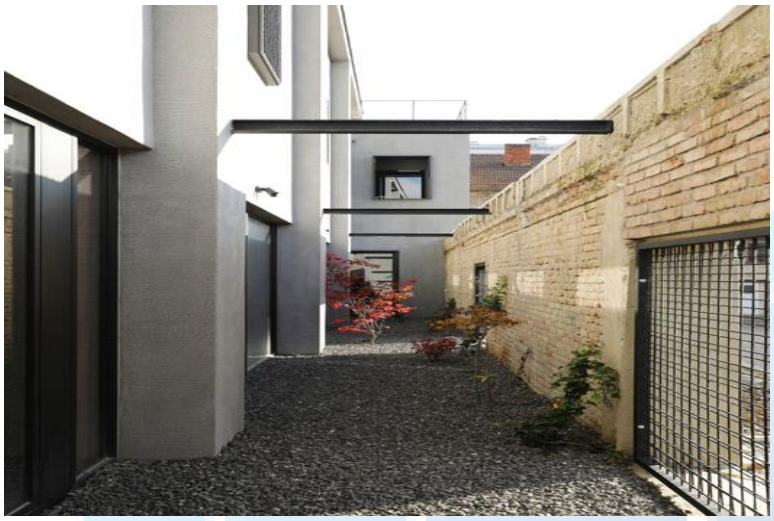
The combination of these materials alternates in the facade design, with the corten steel creating a decorative composition of transparency and lightness in counterweight to the building's heavy historical and structural load, while the insulation system functions to keep the building thermally comfortable for its inhabitants, as it houses libraries, rehearsal rooms, a museum, and exhibition halls. In addition to improving the building's energy efficiency, this insulation system, like steel, provides high resistance to weathering and microorganisms, making it durable enough to accommodate its new use and extend the useful life of a building that was inaugurated in 1972.

In other cases, the adaptive reuse of buildings involves preserving most of the original structural materials with minimal intervention. The Urania Cinema Transformation project is an example of adaptive reuse where a former 1939 cinema has been transformed into a mixed-use complex of public spaces for various cultural activities, offices, and a café.

Urania Cinema Transformation / 3LHD. Image © Jure Živković

The building's entire concrete structure was well-preserved, showcasing the first concrete structures with structural ribs of its time. To minimize heat loss through the exterior wall, an External Wall Insulation System was used, which is non-combustible and resistant to mechanical stress, cracking, and impact, making it ideal for installation and resilience against climate adversities. For the facade, a neutral color was chosen from 1,400 shades in the StoColor System to harmoniously coexist with the original materials and remain within the color palette of the surrounding buildings. Inside, original brick walls, rough

plaster, concrete floors, and ceilings were mostly preserved with minimal intervention.



Extension

This typology refers to the addition of a new space or volume to an existing building or structure, either vertically or horizontally. Typically, this is done to expand the functional capacity of a building, such as adding more rooms to a house or increasing the capacity of a commercial building. The design of an extension must carefully consider how it integrates into the existing structure, ensuring that it blends with the aesthetics of the building while addressing issues of structural stability, accessibility, and environmental sustainability.

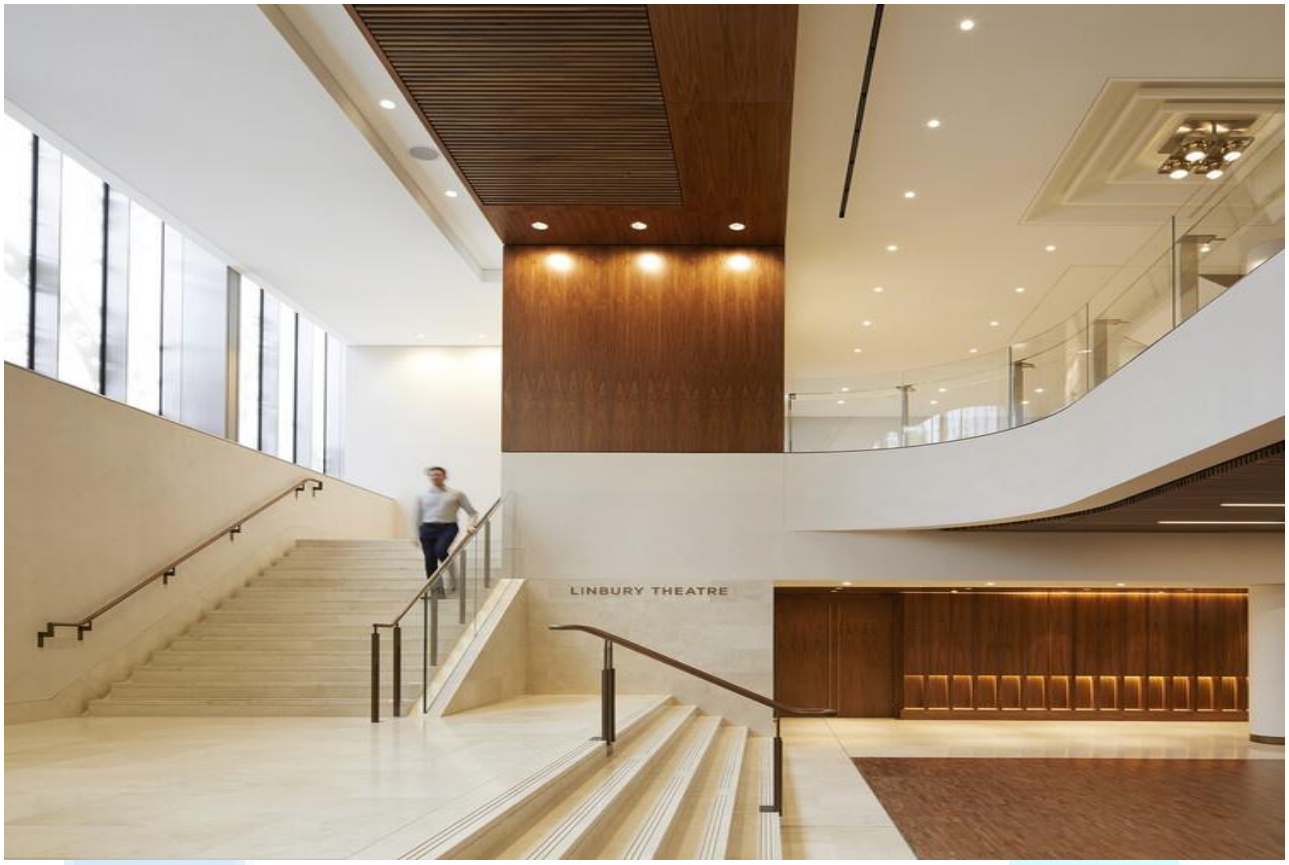
When done correctly, an extension can enhance the livability, functionality, and value of a building, as well as its architectural character and appeal. An excellent example of this is the Residential & Commercial Building Renovation project, where the conversion and extension of the neoclassical building were integrated into the historic context of the city of Tübingen, Germany while preserving the stylistic autonomy between the original and new elements. External wall insulation systems were used for the new element as part of the thermal upgrading of the new building, in addition to being highly weather-resistant. This system helps to minimize heat loss through the exterior wall and provides excellent technical characteristics such as resistance to mechanical stress, cracking, and impact, in addition to adverse weather conditions.

Residential & Commercial Building Renovation / Dannien Roller Architekten + Partner . Image © Dietmar Strauß

Residential & *Commercial Building Renovation / Dannien Roller Architekten + Partner . Image © Dietmar Strauß*

The extension element is differentiated from the old building through a modern architectural language but forms an integral and natural part of the existing topography. To create the distinction between the two elements, a custom facade plaster was used that is cement-free, water and weather-resistant, and allowed for a distinctive surface texture with functional benefits.

There are also examples of more ambitious and larger-scale applications, such as the Royal Opera House building. In addition to renovating the facade, new public areas were incorporated into the ground floor interior, including a café, new stores, and informal spaces for events and exhibitions. Furthermore, the reception lobby and street-level entrance were renovated.



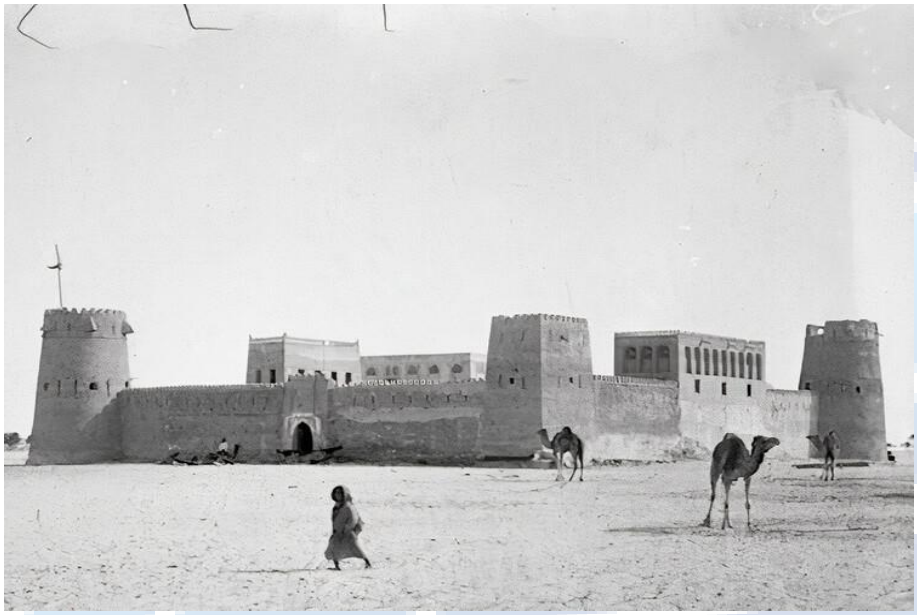
Royal Opera House / Stanton Williams. Image © Hufton+Crow

To address the acoustic challenges caused by pedestrian traffic and the presence of reflective materials in the building's extension, an Acoustic Suspended Ceiling/Wall Lining was installed in the new entrance lobby and reception spaces. This lining is a type of acoustic plaster for walls and ceilings, designed to seamlessly cover large areas.

Restoration

Restoration refers to the process of preserving existing buildings or structures of historical, cultural, or architectural significance. The main objective of restoration is to prolong the life of a building or structure by preventing its deterioration, damage,

or destruction. It involves the careful examination and evaluation of the building's materials, structure, and historical context to determine the most appropriate and sustainable ways to repair or restore it.

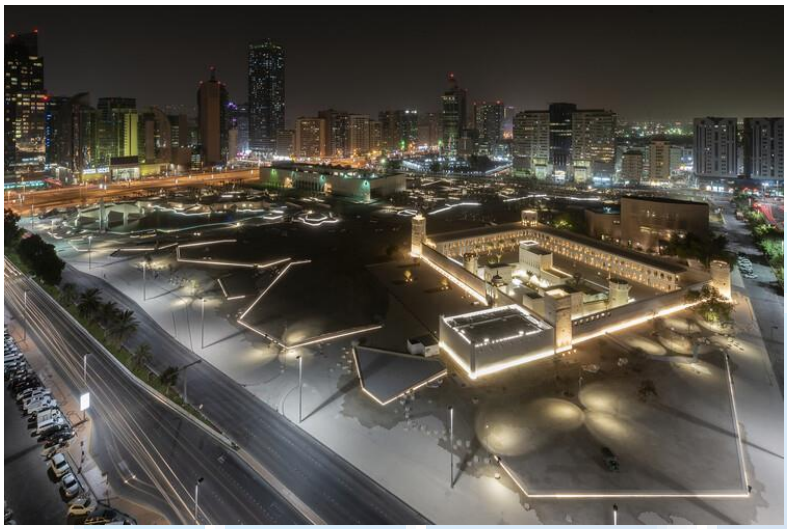


Qasr Al Hosn Fort. Image Courtesy of Abu Dhabi Culture

Qasr Al Hosn Fort. Image Courtesy of Sto

As ancient cities have grown and changed throughout hundreds of years –as is the case of Abu Dhabi– some buildings of high historical value have become immersed in the urban fabric. This is the case of the Qasr Al Hosn Fort, the oldest and most

important building in the city, built in 1760 as a watchtower to protect the only freshwater well on Abu Dhabi Island and later expanded to become a palace.



Al Hosn Masterplan and Landscape / CEBRA. Image © Mikkel Frost

As part of the Al Hosn master plan, this building coexists with the goal of reinstating the fort as the cultural heart of the city, combined with a new type of urban landscape with local roots. To preserve the Qasr Al Hosn, a highly flexible and crack-resistant synthetic plaster finish was used, which imitates the original aesthetic of the building and blends in with the materiality of the master plan so that it maintains its integrity by resisting weathering while being vapor-permeable.

In this context, energetic retrofitting goes beyond just ancestral buildings. An outstanding example is the University of Graz Library, which involves the restoration of a 19th-century building along with an innovative extension. The restoration effort preserves the historical charm of the library, while a remarkable two-storey glass-fronted platform gracefully protrudes from the top of the historic reading room. One of the most notable features of this two-story platform is its potential to provide cover for the people on the staircase and the historic façade below, thanks to the cantilever. Additionally, the sgraffito on the soffit enhances the visual impact of this element, serving as a connection between the past and the future. This integration of old and new elements showcases the library's commitment to energy efficiency and modern architectural design.

University of Graz Library / Atelier Thomas Pucher. Image © David Schreyer

The outcome of this project is a harmonious blend of contrasts, as the existing listed building seamlessly integrates with the new construction to form a cohesive unit. Regardless of the building typology, this library serves as an example of how historic structures can preserve their original facades. Through the implementation of hydrophobic claddings, facades can be protected from the elements, while customized plasters replicate the textures of the original finish. Furthermore, in the case of extensions like this project, the incorporation of panelized ventilated facade systems enables efficient thermal insulation, effectively combining the best features of each architectural typology. Therefore, let's reconsider the Carl Elefante phase. "The most sustainable building is the one that is already built". However, why not enhance it on specific occasions using combined strategies?

University of Graz Library / Atelier Thomas Pucher. Image © David Schreyer

Energetic retrofitting plays a crucial role in improving energy efficiency and creating sustainable buildings across different typologies. By utilizing a diverse range of materials and systems, this approach prioritizes building with a conscience and practical solutions that enhance the overall performance of buildings, whilst improving comfort. With the aim of creating more energy-efficient and sustainable buildings, this approach seeks to achieve the dual purpose of reducing energy consumption and minimizing environmental impact.

EXERCISE 1:

After reading the text, say whether the following statements are True or False.

1. The primary goal of modern architecture is to reduce the carbon footprint of buildings and cities.

   True False

2. The Paris Agreement objectives are focused only on improving energy efficiency in newly constructed buildings.

   True False

3. Renovation projects typically involve demolishing old buildings to construct new ones.

   True False

4. The ShowPass project in Barcelona achieved a 77% reduction in greenhouse gas emissions.

   True False

5. Adaptive reuse involves transforming buildings that no longer serve their original purpose while preserving their historic features.

   True False

6. The Gabriela Mistral Cultural Center in Chile uses corten steel and insulation systems to improve both aesthetics and energy efficiency.

   True False

7. Adding new spaces to existing buildings, also known as restoration, is primarily done to increase functionality and livability.

   True False

8. Restoration projects focus on preserving historical buildings and preventing their deterioration.

   True False

9. Energetic retrofitting includes improving HVAC systems, lighting, and insulation to reduce energy consumption in existing buildings.

   True False

10. According to Carl Elefante, building new structures is the most sustainable approach to architecture.

    True False

EXERCISE 2:

Fill in the Blanks - Complete the sentences using the correct word from the vocabulary list.

imbues, outcome, corten steel, urban fabric, counterweight, gentrification, seamless, hydrophobic claddings, sgraffito, mimics

1. The architects designed the new building to seamlessly integrate with the existing _____ of the city.
2. The gable roof design was chosen because it _____ traditional architecture while adding modern elements.
3. The historic house's walls were enhanced with _____ to protect it from water damage.
4. Renovating the old neighborhood raised concerns about _____ and displacement of original residents.
5. The _____ of the project was a perfectly balanced mix of old and new design elements.
6. They used _____ steel for the facade to withstand environmental exposure.
7. The _____ on the underside of the roof added an artistic touch to the restored building.
8. The architect's plan _____ the area with a sense of history and modernity.
9. A _____ balance was needed to ensure the large sculpture didn't tip over.
10. The _____ finish of the walls made them appear as though they were made from a single piece of material.

UNIT THREE

Listening Comprehension

AJ Specification Live: What makes a great retrofit?

https://www.youtube.com/watch?v=jbdmY_o5OaU

EXERCISE 1:

Listening Comprehension Quiz

1. What is a top tip for a successful retrofit project?

a) Understanding the existing building well

b) Rebuilding the entire structure

c) Ignoring the original architect's concept

d) Avoiding any changes to the building

2. Why is it important to collect a lot of data about the building?

a) To change the building's design completely

b) To expand the building's exterior

c) To replace all old materials

d) To understand the building and use the space effectively

3. In the Media Center project, what kind of data was captured?

a) Only about the materials used

b) Only about the aluminium structure

c) About both the aluminium structure and the original fit-out

d) About the architects' personal lives

4. How did the curators contribute to the project?

a) They ignored the architect's ideas

b) They worked closely with the architect to build the project brief

c) They only provided funding

d) They refused to collaborate

5. What should be respected in a retrofit project according to the speaker?

a) The size of the building

b) The original concept of the building

c) The color of the building

d) The cost of the building

6. What does the speaker find interesting about being part of the panel?

a) Hearing other architects talk about their projects

b) Seeing the same projects being presented

c) Not listening to other speakers

d) Watching architects at work

7. How does the speaker describe the crowd at the event?

a) Quiet and uninterested

b) Confused and unsure

c) Great and enthusiastic, asking various questions

d) Unhappy with the presentations

8. What does the speaker plan to do after the event?

a) Forget about the projects

b) Redesign all the projects presented

c) Avoid retrofitting projects in the future

d) Think about the ideas discussed

Inside the Empire State Building's green retrofit

https://www.youtube.com/watch?v=tUpgYsi16bo

Complete the text below using the words you hear from the video.

In New York City, **(1)** _____ **percent** of carbon emissions originate from buildings. With nearly **(2)** _____ **million** buildings consuming energy for cooling, heating, lighting, and operations, it's clear that retrofitting is essential. By 2050, an estimated **(3)** _____ **percent** of these buildings will still be in use.

The Empire State Building's retrofit aims to lower carbon emissions by **(4)** _____ **percent** by 2030, striving for **(5)** _____ **neutrality**. The building now features advanced **(6)** _____ **technology**, including upgrades to the chiller plants. They also reused **(7)** _____ **percent** of the original glass and frames, insulating all **(8)** _____ **windows** to prevent heat loss.

A key upgrade was the elevator system, which generates energy through its **(9)** _____ **mechanism**. Globally, buildings are responsible for **(10)** _____ **percent** of energy-related CO2 emissions. In Canada, around **(11)** _____ **large buildings** require retrofitting to reduce the country's carbon footprint.

The Empire State project aims to set an example, proving that **(12)** _____ is possible and encouraging others to **(13)** _____ **green**, not just high.

UNIT FOUR

Use of English

One very common example of a deep retrofit project is the conversion of redundant agricultural buildings such as barns, steadings and stables. Transforming such buildings, which were never intended to be heated, inevitably involves adding insulation, fitting windows and doors and installing a heating system.

A successful deep retrofit will involve applying many of the same principles as a Passivhaus new build project.

Often the building will already have a energy efficient form – many old buildings (think terraced houses) were built in this way because simply because it was cheaper.

Improving insulation of the floor, walls and roof

Ensuring that there are no gaps in the insulation, while accepting that this can sometimes be challenging in an existing building

Improving airtightness to eliminate draughts and vastly improve comfort as well as reducing energy bills – addressing draughts can often be one of the easiest and most cost effective ways of improving energy efficiency

Installing high performance windows and doors

Providing a good ventilation system, which may include heat recovery, to ensure an excellent level of air quality in what will be a much more airtight building

Another very important consideration in retrofit architecture projects is the control of moisture. All too often, attempts at improving the energy efficiency of buildings can inadvertently cause moisture to be trapped inside the building structure leading to future problems. Selecting the right insulation strategy for your building is essential and this is where an architect with the right knowledge can really help.

EXERCISE 1:

Complete each sentence using a derived form of the given word in parentheses.

1. Transforming agricultural buildings often requires _____ insulation, windows, and a heating system. **(ADD)**
2. A deep retrofit applies the same _____ as a Passivhaus new build project. **(PRINCIPLE)**
3. Many old buildings have an energy-efficient form because it was _____ to build that way. **(CHEAP)**
4. Improving the _____ of the floor, walls, and roof is crucial in a deep retrofit project. **(INSULATE)**
5. Addressing draughts can be one of the most _____ ways to improve energy efficiency. **(EFFECT)**
6. Improving airtightness helps to eliminate draughts, vastly improving _____ and reducing energy bills. **(COMFORTABLE)**
7. Installing high-performance windows and doors can help improve the building's _____. **(VENT)**
8. A good ventilation system, which may include heat _____, ensures excellent air quality in a more airtight building. **(RECOVER)**
9. Controlling moisture is a very important _____ in retrofit architecture projects. **(CONSIDER)**
10. Selecting the right insulation strategy is _____ for improving energy efficiency and preventing moisture problems. **(ESSENCE)**

Conversation 1: Architect and Client Discussing Retrofitting a Building

Client: So, I'm thinking of retrofitting my office building. Could you tell me more about the process?

Architect: Sure! Retrofitting means upgrading an existing building to make it more energy-efficient or modern without changing its structure. For example, we often install new insulation, upgrade windows, or improve heating systems.

Client: That sounds good. What's the first step?

Architect: Right now, we are assessing the building to identify the best areas to improve. We will complete a detailed report by the end of the week. After that, we will propose solutions that fit your budget.

Client: How long will the process take?

Architect: It depends on the changes you choose. For example, if you only want to upgrade the lighting and heating systems, we can finish in about two months. But if you want to add solar panels, it might take a little longer. We will create a timeline after our assessment.

Client: That sounds good. I'm planning to stay in the office while the retrofitting is happening. Is that possible?

Architect: Yes, we can schedule the work in phases so it doesn't interrupt your daily operations. We'll make sure to discuss all the details with you before we start.

Conversation 2: Architect Discussing Retrofitting Plans with a Colleague

Architect 1: Have you seen the latest project plan for the retrofitting of the old library?

Architect 2: Yes, I have. We finished reviewing it yesterday. I think the changes look great, especially the solar panels and the new ventilation system.

Architect 1: I agree. We've also been talking about adding more insulation. It will really improve energy efficiency. Have you worked on a retrofitting project like this before?

Architect 2: I did one last year. It was a smaller building, but we faced similar challenges with the insulation and electrical systems.

Architect 1: That's good to know. We're going to start the retrofitting work next month. By then, we will have completed all the structural assessments.

Architect 2: Will we need to make any structural changes, or is it just about improving the systems?

Architect 1: For now, it looks like we'll focus on upgrading the systems, but if we find any issues during the assessment, we might need to reinforce some parts of the building. We should be prepared for that possibility.

Architect 2: Makes sense. Let me know if you need any help with the planning. I'll be available next week.

Conversation 3: Architect Meeting with a Client to Discuss Retrofitting, Refurbishment, and Renovation of a Historical Building

Client: We've been thinking about retrofitting the old town hall. It's a historical building, so I'm concerned about maintaining its character. Is that going to be a problem?

Architect: I understand your concern. We've been working on several historical buildings recently, and we always ensure that we preserve their original features while improving energy efficiency. Have you considered any specific refurbishment or renovation options so far?

Client: Yes, we were looking at upgrading the windows and heating system. We also thought about adding insulation, but we didn't want to change the appearance of the walls.

Architect: That's a common concern with retrofitting historical buildings. While we were evaluating another project last year, we faced a similar issue with insulation. In that case, we used internal insulation that didn't affect the exterior. We can explore similar solutions here for both refurbishment and retrofitting.

Client: That sounds perfect. How long will this project take?

Architect: We will have completed the planning phase by the end of next month. After that, the retrofitting and refurbishment work should take about three to four months. By then, we will have installed all the upgrades, and the building will be much more energy-efficient without losing its historical charm.

Client: I'm glad to hear that. While you were assessing the building, did you notice any major structural issues that might affect the renovation?

Architect: Actually, while we were examining the roof, we found some areas that will need renovation. The materials are quite old, and they haven't been replaced in decades. We'll include this in the final report and propose a solution that fits the retrofitting plan.

EXERCISE 2:

In the following sentences, there are mistakes related to verb tenses. Read each sentence carefully and identify the errors. Then, rewrite the sentence with the correct verb tense.

1. Architect: "We are assessing the building to identify the best areas to improve. We completed a detailed report by the end of the week."

---

2. Client: "That sounds good. I am planning to stay in the office while the retrofitting will be happening."

---

3. Architect 1: "We had also talked about adding more insulation. It will really improve energy efficiency."

---

4. Architect 2: "I do one last year. It was a smaller building, but we faced similar challenges."

---

5. Architect 1: "We're starting the retrofitting work next month. By then, we will have completed all the structural assessments."

---

6. Architect 2: "Let me know if you need any help with the planning. I'll be available next week."

---

7. Client: "We were looking at upgrading the windows and heating system. We thought about adding insulation, but we didn't want to change the appearance of the walls."

---

8. Architect: "While we evaluated another project last year, we faced a similar issue with insulation. We are used internal insulation that didn't affect the exterior."

---

9. Client: "How long will this project takes?"

---

10. Architect: "We will have completed the planning phase by the end of next month. By then, the retrofitting and refurbishment work will take about three to four months."

EXERCISE 3:

Complete the sentences using the correct form of the verb in brackets and choose the correct vocabulary word (renovation, retrofitting, or refurbishment). Transform the verb from present **to the** past **or** future **tense, as indicated in each sentence.**

1. (Complete the past form)
   Last year, we _____ (retrofit) an old industrial building to make it more energy-efficient. The project included upgrading the windows and improving the heating system.
2. (Transform into the future tense)
   By the end of next month, we _____ (finish) the _____ (renovation/retrofit/refurbishment) of the library. All structural repairs will be done by then.
3. (Complete in the past continuous)
   While the contractors _____ (work) on the building's _____ (refurbishment/retrofit), they discovered that the plumbing system needed to be replaced.
4. (Use future perfect)
   By next year, we _____ (complete) the _____ (renovation/retrofit) of the city's train station, making it more accessible and sustainable.
5. (Transform into the past tense)
   The architects _____ (plan) the _____ (retrofit/renovation) for several months before starting work on the building.
6. (Complete using present perfect)
   We _____ (install) new solar panels as part of the _____ (retrofitting/refurbishment) project, and the energy consumption has already dropped by 20%.
7. (Transform into future continuous)
   During the next few weeks, the team _____ (work) on the roof's _____ (refurbishment/retrofit), so you might notice some noise.
8. (Complete in the past simple)
   The historical building _____ (undergo) major _____

(renovation/retrofit/refurbishment) to restore its original features, such as the old wooden beams and stained glass windows.

9. (Transform into future tense)
   After we finish the structural assessment, we _____ (propose) a plan for the _____ (renovation/retrofit/refurbishment) of the office complex.
10. (Complete using past perfect)
    Before we started retrofitting the building, the client _____ (request) that we keep the original façade as part of the _____ (renovation/refurbishment).

ANSWER KEYS

UNIT ONE

EXERCISE 1:

1.A: Don't submit that report yet. It **isn't finalized** (finalize) completely now. You **will face** (face) issues!
B: Oh, **I will review** (review) it then.

2. A: Can you give me that floor plan?
B: What **are you going to do** (do) with it?
A: I **am analyzing** (analyze) the design. I'm preparing a summary. Do you need any?
B: No, thanks, I **have just completed** (just/complete) my own report.

3. ARCHITECT: What **were you doing** (do) at the time the error was discovered?
DESIGNER: **I was reviewing** (review) the blueprints with my team. We were very focused because we **had not checked** (not/check) these details before.

4. A: **Are you going to** (you/go) the construction seminar next week?
B: Yes, I **have already bought** (already/buy) the tickets!

5. A: **Have you ever been** (ever/be) to an international architecture conference?
B: Yes, I **went** (go) to one in Berlin last year.

6. A: I **have been reconciling** (reconcile) the plans all morning. I'm really tired.
B: Don't worry, I **will help** (help) you finish.

7. A: Why **are you using** (use) the new design software today? You **have never used** (never/use) it before.
B: Because I **used** (use) too many manual methods yesterday.

8. A: How long **have we been driving** (we/drive)?
B: Too long. I'm tired. **Shall we stop** (we/stop) for a break?
A: OK.

EXERCISE 2:

1. A
2. D
3. A
4. C
5. C
6. A
7. B
8. C
9. B
10. A
11. C
12. C
13. D
14. A
15. D
16. C
17. E
18. E
19. B
20. C

UNIT TWO

EXERCISE 1:

1. True
2. False
3. False
4. True
5. True
6. True
7. False
8. True
9. True
10. False

EXERCISE 2:

1. Urban fabric
2. Mimics
3. Hydrophobic claddings
4. Gentrification
5. Outcome
6. Corten steel
7. Sgraffito
8. Imbues
9. Counterweight
10. Seamless

UNIT THREE

EXERCISE 1:

1. a)
2. d)
3. c)
4. b)
5. b)
6. a)
7. c)
8. d)

EXERCISE 2:

1. 70
2. 1
3. 90
4. 50
5. carbon
6. green
7. 96
8. 6,500
9. braking
10. 37
11. 100,000
12. this
13. build

UNIT FOUR

EXERCISE 1:

1. Transforming agricultural buildings often requires **adding** insulation, windows, and a heating system.
2. A deep retrofit applies the same **principles** as a Passivhaus new build project.
3. Many old buildings have an energy-efficient form because it was **cheaper** to build that way.
4. Improving the **insulation** of the floor, walls, and roof is crucial in a deep retrofit project.
5. Addressing draughts can be one of the most **effective** ways to improve energy efficiency.
6. Improving airtightness helps to eliminate draughts, vastly improving **comfort** and reducing energy bills.
7. Installing high-performance windows and doors can help improve the building's **ventilation**.
8. A good ventilation system, which may include heat **recovery**, ensures excellent air quality in a more airtight building.
9. Controlling moisture is a very important **consideration** in retrofit architecture projects.
10. Selecting the right insulation strategy is **essential** for improving energy efficiency and preventing moisture problems.

EXERCISE 2:

1. **Architect:** "We are assessing the building to identify the best areas to improve. We **will complete** a detailed report by the end of the week."
2. **Client:** "That sounds good. I am planning to stay in the office while the retrofitting **is happening**."
3. **Architect 1:** "We **have also talked** about adding more insulation. It will really improve energy efficiency."
4. **Architect 2:** "I **did** one last year. It was a smaller building, but we faced similar challenges."
5. **Architect 1:** "We're going to start the retrofitting work next month. By then, we **will have completed** all the structural assessments."
6. **Architect 2:** "Let me know if you need any help with the planning. I **will be available** next week."
7. **Client:** "We **are looking** at upgrading the windows and heating system. We thought about adding insulation, but we didn't want to change the appearance of the walls."
8. **Architect:** "While we **were evaluating** another project last year, we faced a similar issue with insulation. We **used** internal insulation that didn't affect the exterior."
9. **Client:** "How long will this project **take**?"
10. **Architect:** "We will have completed the planning phase by the end of next month. By then, the retrofitting and refurbishment work **will take** about three to four months."

EXERCISE 3:

1. retrofitted
2. will have finished; renovation
3. were working; refurbishment
4. will have completed; renovation
5. had planned; retrofit
6. have installed; retrofitting
7. will be working; refurbishment
8. underwent; refurbishment
9. will propose; renovation
10. had requested; renovation

FINAL TEST

DOMANDE PER CREAZIONE QUIZ SEMINARIO ON DEMAND

Inserire 12 domande relative al seminario e indicare la risposta corretta

	Domanda	Vero	Falso
1	Simple Present vs Simple Present Continuous: they can be used indifferently		X
2	Simple Present is used for habitual and repeated actions	X	
3	Simple Past: it is used very rarely in English		X
4	Simple Present Continuous can also have a future meaning	X	
5	DID in interrogative and negative forms – simple past tense – is used both for regular and irregular verbs	X	
6	The verb TO HAVE does not need DO or DID in interrogative and negative forms		X
7	Retrofitting is becoming popular in the architectural field	X	
8	São Paulo is the only big city investing in retrofitting		X
9	A major challenge in retrofitting historic buildings is preserving existing architectural elements.	X	
10	Giovanni Batista Piranesi was an Italian printmaker who was interested in Roman ruins.	X	
11	The rear is preserved to create a garden.		X
12	Different layers of bricks contribute to accentuating the appearance of a ruin.	X	

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